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November 22, 1996

EDWARD W. HUMMERS, JR.
202-457-7145

RECEIVED
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

VIA HAND DELIVERY

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

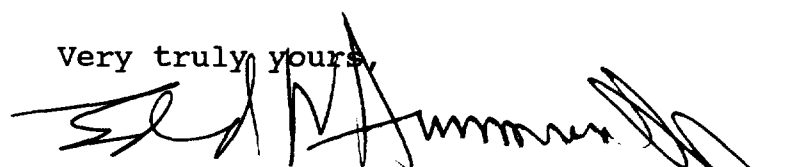
Re: In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service - MM Docket No. 87-268

Dear Mr. Secretary:

Transmitted herewith, on behalf of Harris Corporation, are an original and eleven (11) copies of its Reply Comments in the above-referenced docket.

If you have any questions, please do not hesitate to contact me.

Very truly yours,



Edward W. Hummers, Jr.
Counsel for Harris Corporation

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Enclosures

No. of Copies rec'd 0+11
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Before the
Federal Communications Commission
Washington, D. C. 20554

NOV 2 2 1996

In the Matter of	)	
	)	
Advanced Television Systems	)	
and Their Impact Upon the	)	MM Docket No. 87-268
Existing Television Broadcast	)	
Service	)	

TO: The Commission

COMMENTS OF HARRIS CORPORATION ON THE SIXTH NOTICE OF PROPOSED RULEMAKING

Harris Corporation (hereinafter "Harris") hereby files the following comments with regard to the Commission's *Sixth Notice of Proposed Rulemaking*, FCC 96-317, released August 14, 1996 (hereinafter "*Sixth Further Notice*" or "*Notice*"), in the above captioned proceeding.

1. Harris has been a leading provider of broadcast transmission equipment for more than 70 years. Today, Harris Broadcast Division supplies television and radio transmission products and systems, studio and mobile production systems and services to broadcasters in more than 150 countries. Harris is a leader in the development of DTV. The Broadcast Division has been heavily involved in digital television since 1990 when it developed the RF Test Bed for the Advanced Television Test Center in Alexandria, Virginia, which was used to evaluate the competing digital television systems and the Grand Alliance system. Harris employees have participated actively in the ACATS Working Groups. Earlier this year, a Harris transmitter became the first in the United States to broadcast the commercial digital television signals of station WRAL-HD, Raleigh, North Carolina.

2. Harris has announced plans to establish a new research and development facility to speed the introduction of equipment for the emerging digital television market. The Harris Digital Television Center of Excellence will be established in the greater Cincinnati area to serve as the hub for the company's development of DTV transmission equipment and systems.

3. To determine the extent and nature of the interest of television licensees in DTV, Harris commissioned an independent study of 400 broadcasting company executives, representing 479 stations nationwide (hereinafter the "Harris Study"). The Harris Study, copy attached, was conducted October 8, 1996 through October 18, 1996 by Systems Research Corporation of Rochelle Park, New Jersey. The survey has a potential error rate of +/- 4% at the 95% confidence interval. An attempt was made to balance the number of interviews of large television market stations versus smaller market stations, by quota, to match the numbers in the marketplace. Harris Survey Table 10.

4. The Harris Survey findings include the following:

- 72% hope DTV becomes a reality. Table 9.
- 72% say the main reason they will convert to DTV is to stay competitive with other stations and other services in the market. Table 4.
- 79% plan to convert to DTV with five years once the Commission adopts a standard and sets a timeline. Of that total, 28% expect to convert with two years; 51% between two and five years; and 17% state it will take more than five years. Table 3.
- 69% feel a mandated conversion timeline should be 10 years or less and 31% feel there should be no mandated conversion timeline. Table 2.
- 83% prefer the Grand Alliance standard. Table 7.
- 91% state that auctioning off the digital spectrum would delay the roll out of DTV. Table 5.

5. Harris notes that DTV is still in the experimental and developmental stage. Testing and research are ongoing with a substantial number of issues concerning interference and propagation characteristics unresolved. To take advantage of the technical knowledge to be acquired within the next few years, Harris believes that it is important to maintain flexibility during the DTV implementation stage by utilizing the full television spectrum for DTV allotment purposes. The premature selection of core channels may result in channel allotments with significant technical shortcomings that are not correctable. Further, the allotment table selected as a result of the *Sixth Further Notice* must be considered only a starting point and one which may be revised to take advantage of technical benefits and account for technical problems gleaned from experience. Harris supports the frequency coordinating committees approach to subsequent allotment table modification proposed by the Broadcasters' Caucus.

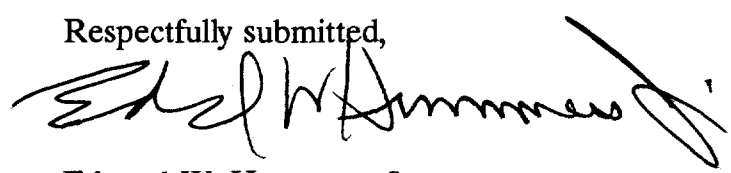
6. Harris believes that the speed of implementation of DTV will, in large part, be dependent upon the availability and penetration rate of DTV receivers. Television licensees believe that, on average, DTV receivers will be available within four and a half years. Harris Survey Table 8. The experience of Harris with regard to AM stereo leads it to believe that the Commission must not only adopt a DTV transmission standard, it must require all digital receivers to achieve the minimal interference levels of the Grand Alliance system. Only then will there be a reasonable way to evaluate the effectiveness of a channel allotment plan and the selection of the core channels to which all stations must eventually migrate.

7. The Commission's concern that an appropriate channel labeling scheme should be adopted is supported by Harris. *See, Notice* at 33-34. There is no technical reason why

a DTV channel's identity could not remain constant notwithstanding the actual frequency being broadcast by that channel. It is significant to note that 60% of those surveyed believe that a new channel number will be a serious hurdle to overcome in the conversion to digital TV. Harris Survey Table 6. Maintaining channel identity should reduce consumer confusion and maintain station identity, both necessary to the successful transition to DTV.

8. In conclusion, Harris asks that the Commission adopt the Grand Alliance system, adopt as a starting point an allotment table utilizing all present television channels, establish a frequency coordination committee approach to subsequent allotment table modification, require DTV receivers to achieve the minimal interference levels of the Grand Alliance system, and adopt a channel labeling scheme that will preserve station identity during the DTV implementation period and beyond.

Respectfully submitted,



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Counsel for Harris Corporation

November 22, 1996

Digital TV Survey Findings

conducted for

Harris Corporation
Melbourne, FL

by:

Systems Research Corporation
Rochelle Park, NJ

Methodology

- During a ten minute telephone interview conducted by Systems Research Corporation of Rochelle Park, NJ, 400 executives of TV stations, (representing 479 total U.S. stations) were surveyed on their opinions on the status of Digital TV. Interviews were conducted on a CATI (Computer Aided Interviewing) system. Survey dates were October 8, 1996 through October 18th, 1996.
- Each executive was pre-screened to have responsibility for Digital TV decisions.
- In order to enhance compliance rates, interviewees were promised a copy of a portion of the results by broadcast fax at a later time.
- The database sample of US. TV Station executives provided by Harris Corporation contained 1,551 names, each of which was called an average of 2.2 times. The data reported herein excludes responses for "Don't Know" and refusals.
- The survey has a potential error rate of +/- 4% at the 95% confidence interval, considered to be highly acceptable as a low margin for error.
- An attempt was made to balance the number of interviews of large market stations versus smaller markets, by quota, to match the numbers in the marketplace.
- Survey results were compiled into a set of cross-tabs which was used for the analysis by Systems Research Corporation, and subsequently graphed, herein.

How much do you think the entire conversion will cost your station?

(Base = 323; Percent by $M Answer)

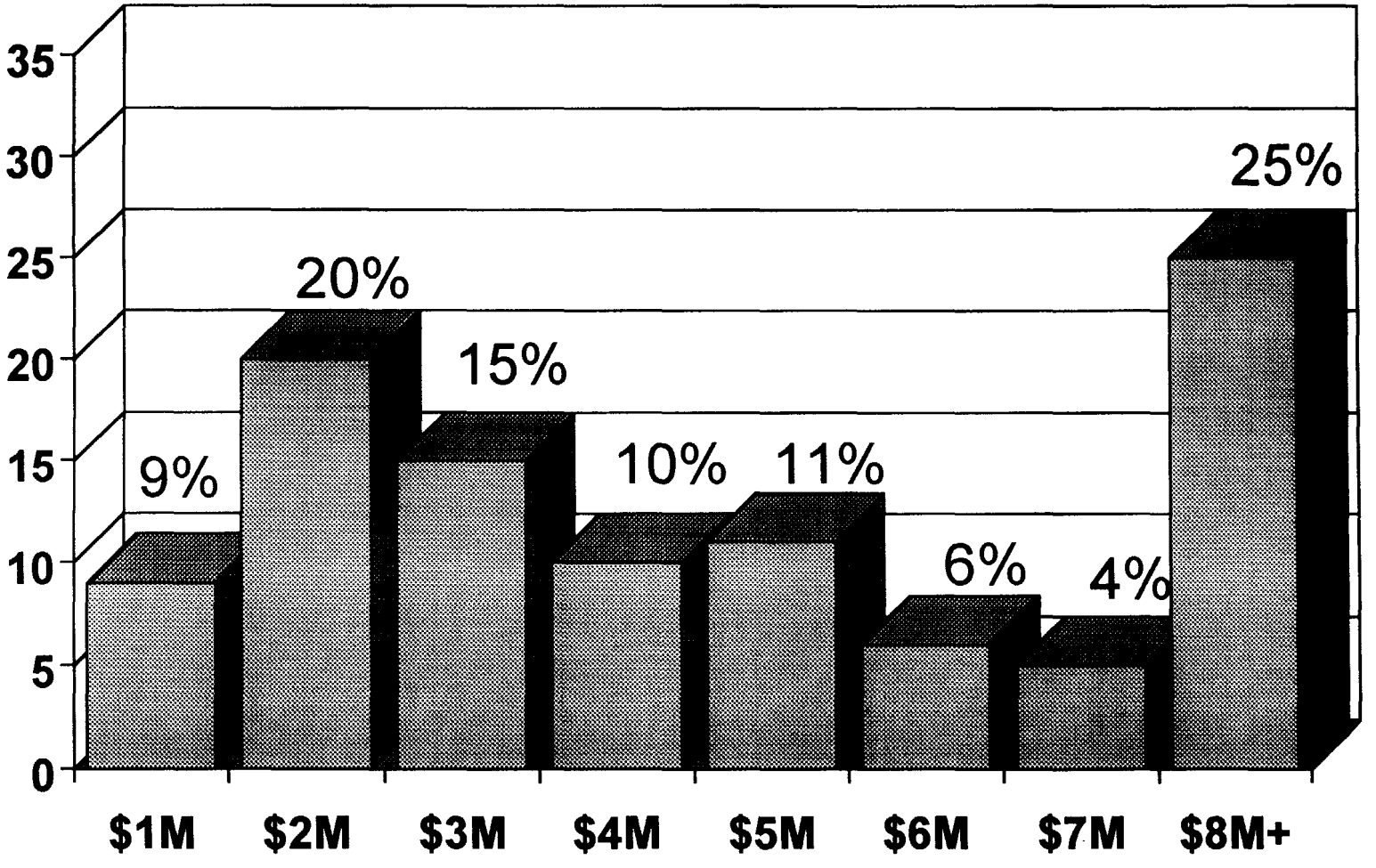


TABLE 1

Systems Research Corp: Harris Corp. Digital TV Survey - Stations

What time line should be mandated for the conversion after digital TV broadcasting has begun?

(Base = 379)

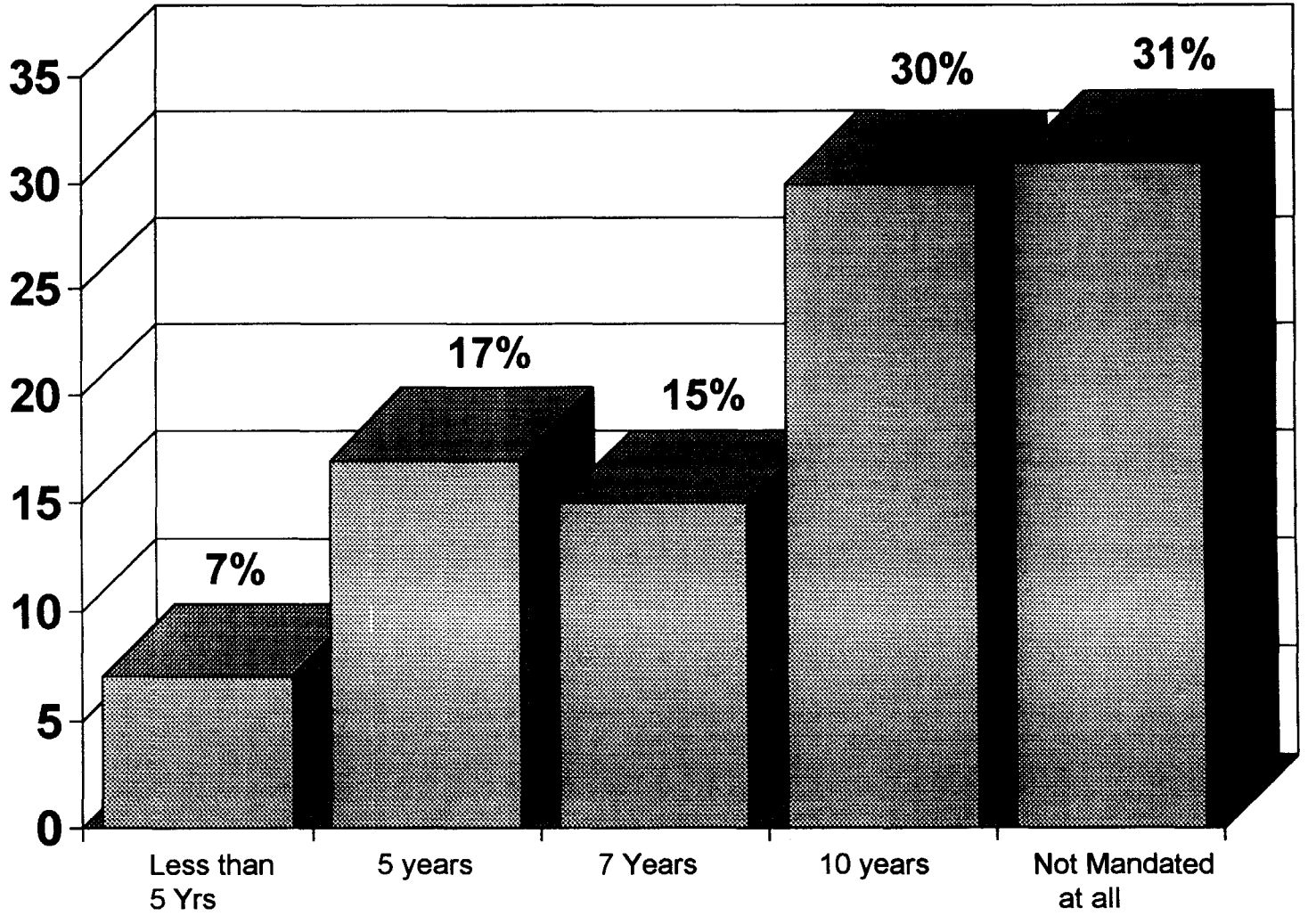
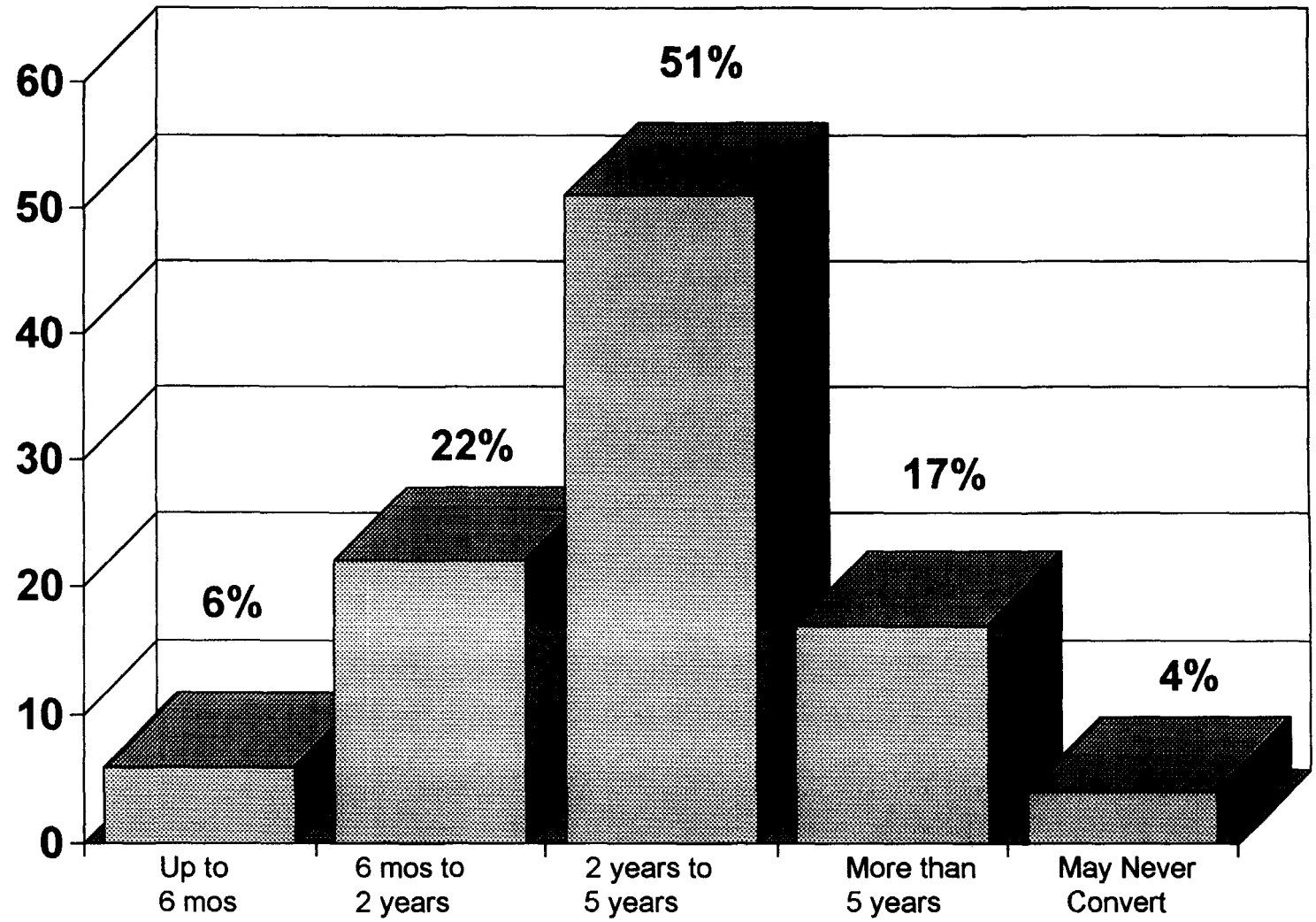


TABLE 2

Systems Research Corp: Harris Corp. Digital TV Survey - Stations

When will stations convert to digital TV after government sets time line?

(Base = 363)



Systems Research Corp: Harris Corp. Digital TV Survey - Stations

TABLE 3

Biggest benefit of digital TV?

(Base = 350)

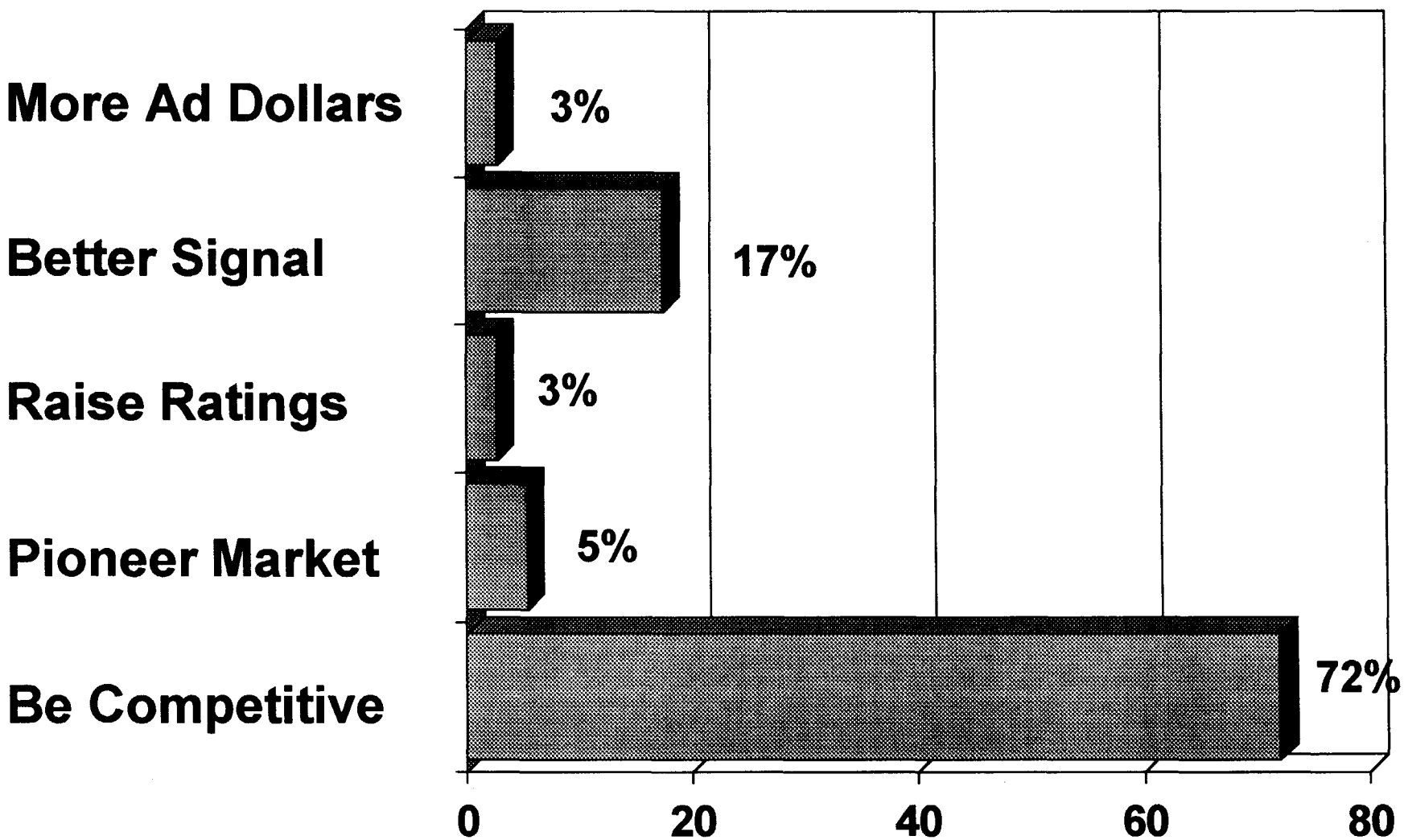


TABLE 4

Systems Research Corp: Harris Corp. Digital TV Survey - Stations

Will federal spectrum auctioning delay digital TV roll-out?

(Base = 370)

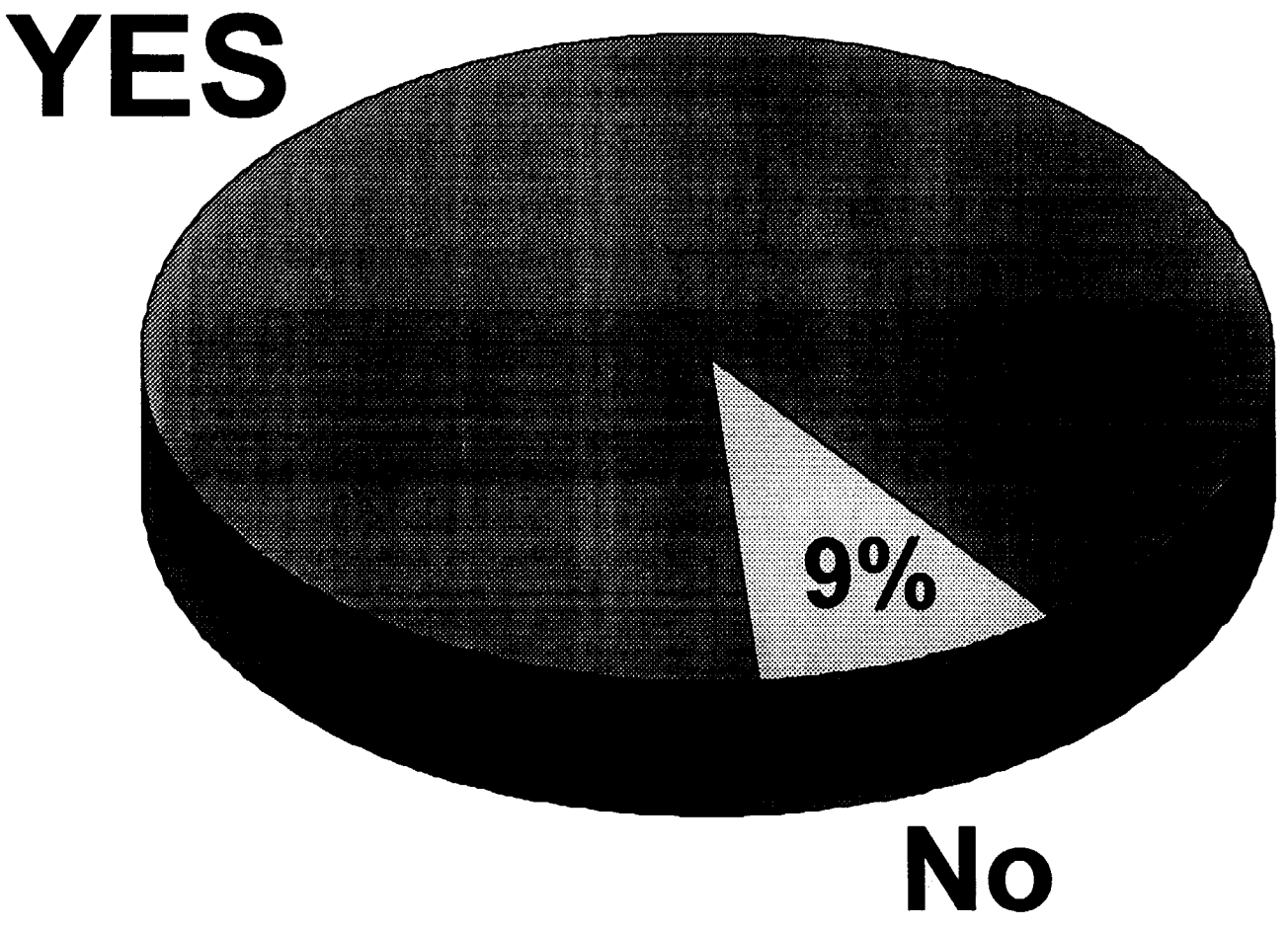
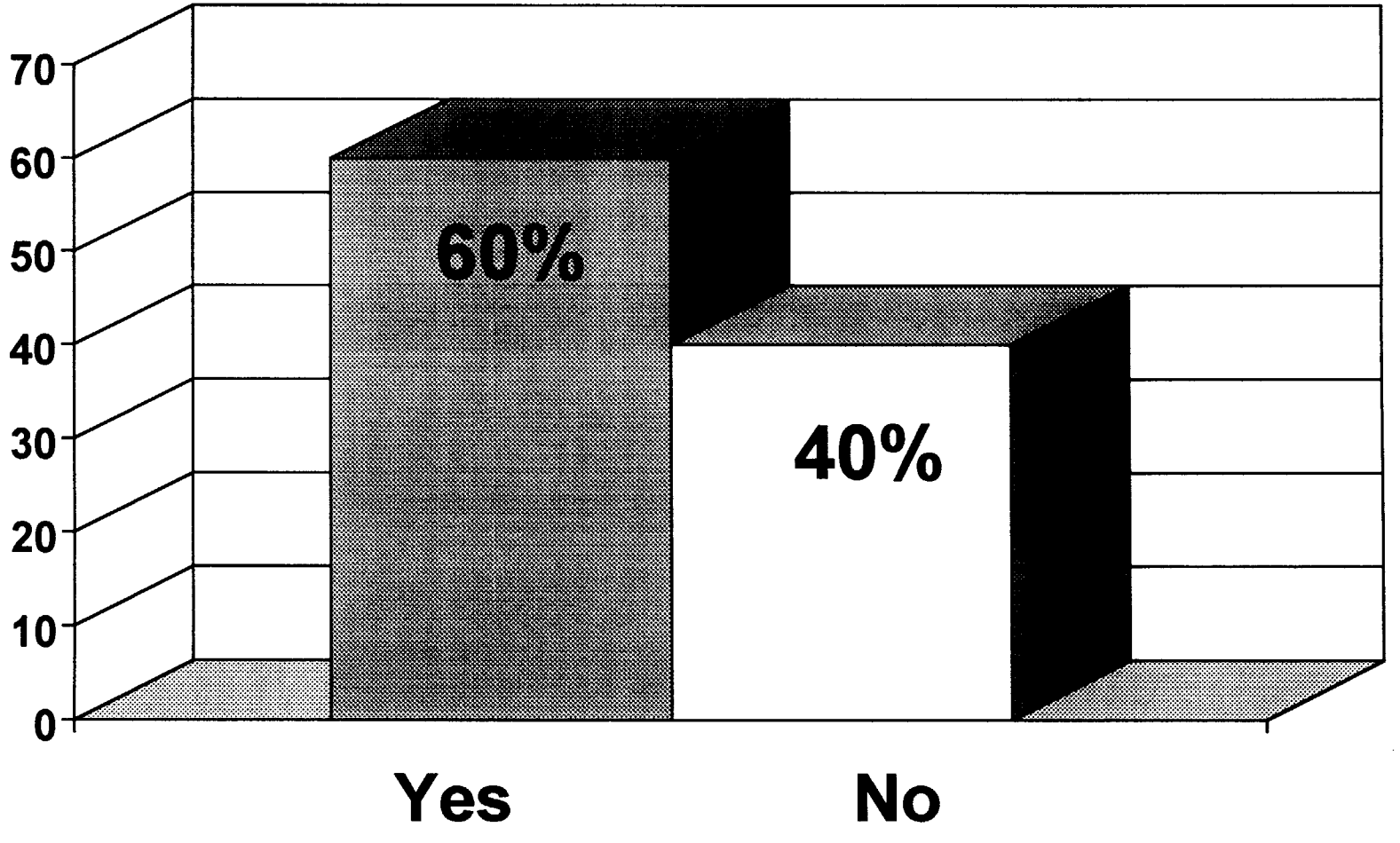


TABLE 5

Systems Research Corp: Harris Corp. Digital TV Survey - Stations

Will new channel #'s be a serious hurdle to overcome?

(Base = 387)

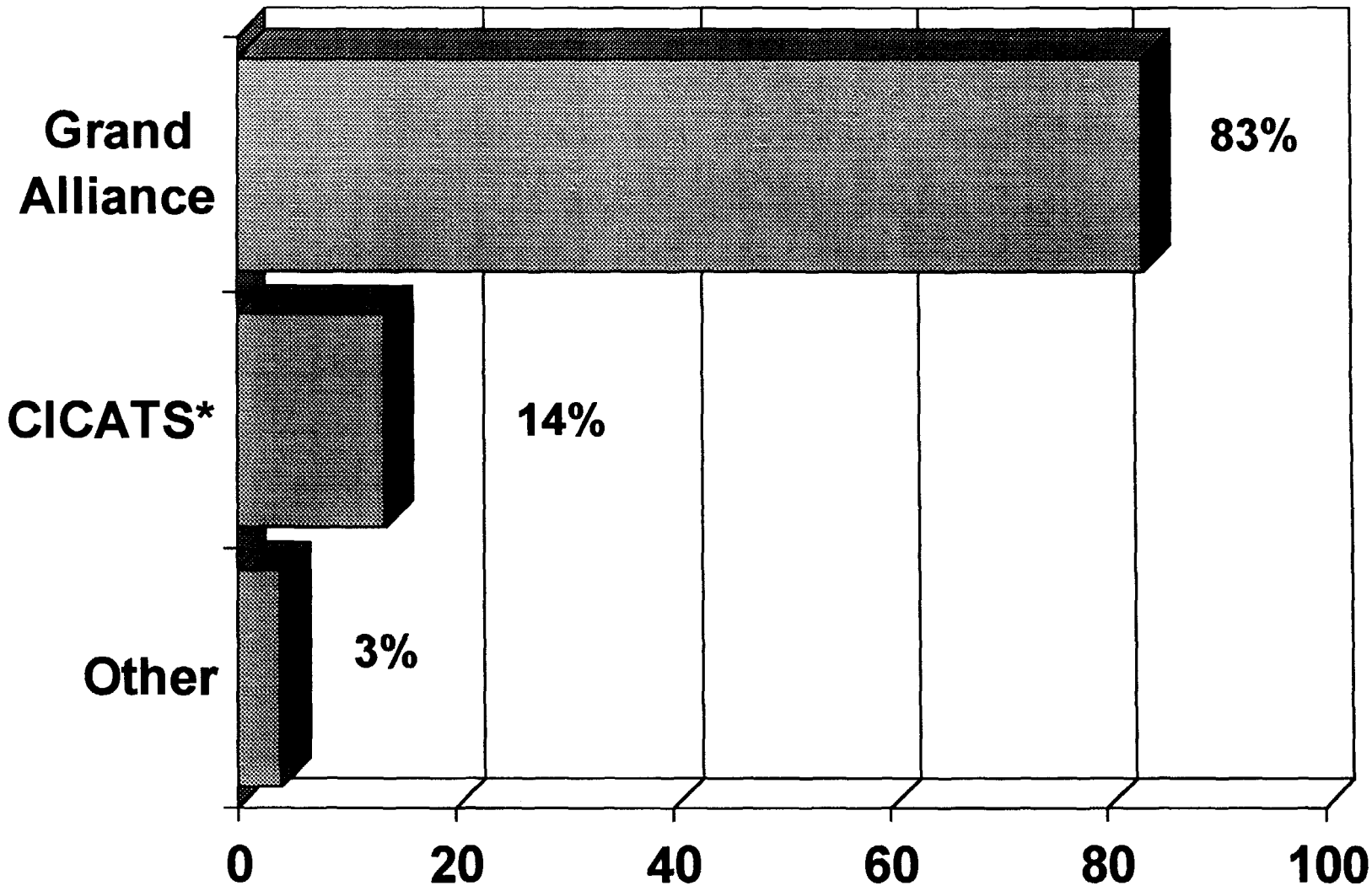


Systems Research Corp: Harris Corp. Digital TV Survey - Stations

TABLE 6

Preferred digital TV standard

(Base = 296)



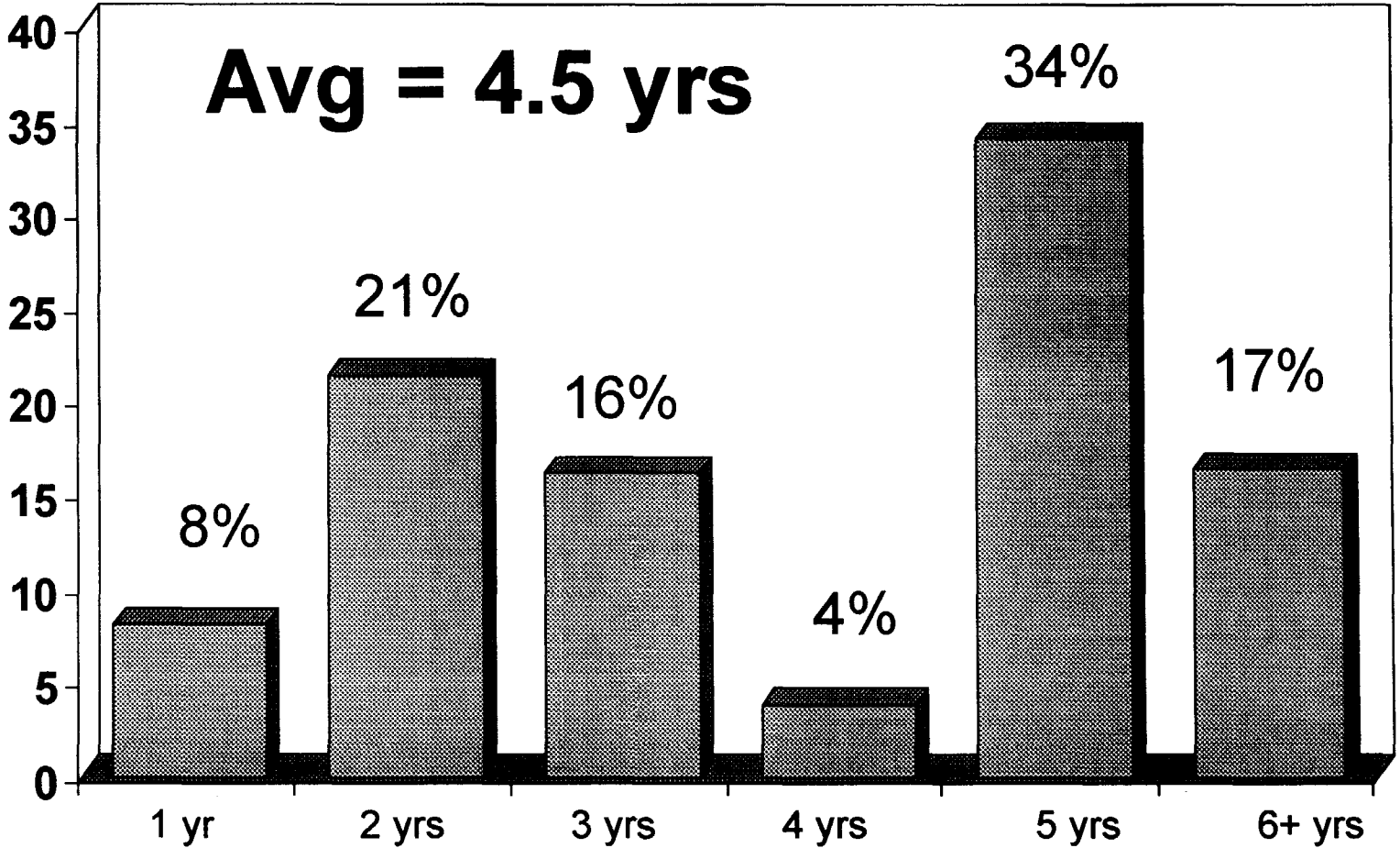
Systems Research Corp: Harris Corp. Digital TV Survey - Stations

* Computer Industry Coalition on Advanced TV Svc Proposal

TABLE 7

In how many years do you think digital TV receivers will be available on the market?

(Base = 346)



Systems Research Corp: Harris Corp. Digital TV Survey - Stations

TABLE 8

Do you hope that the conversion will become a reality?

(Base = 370)

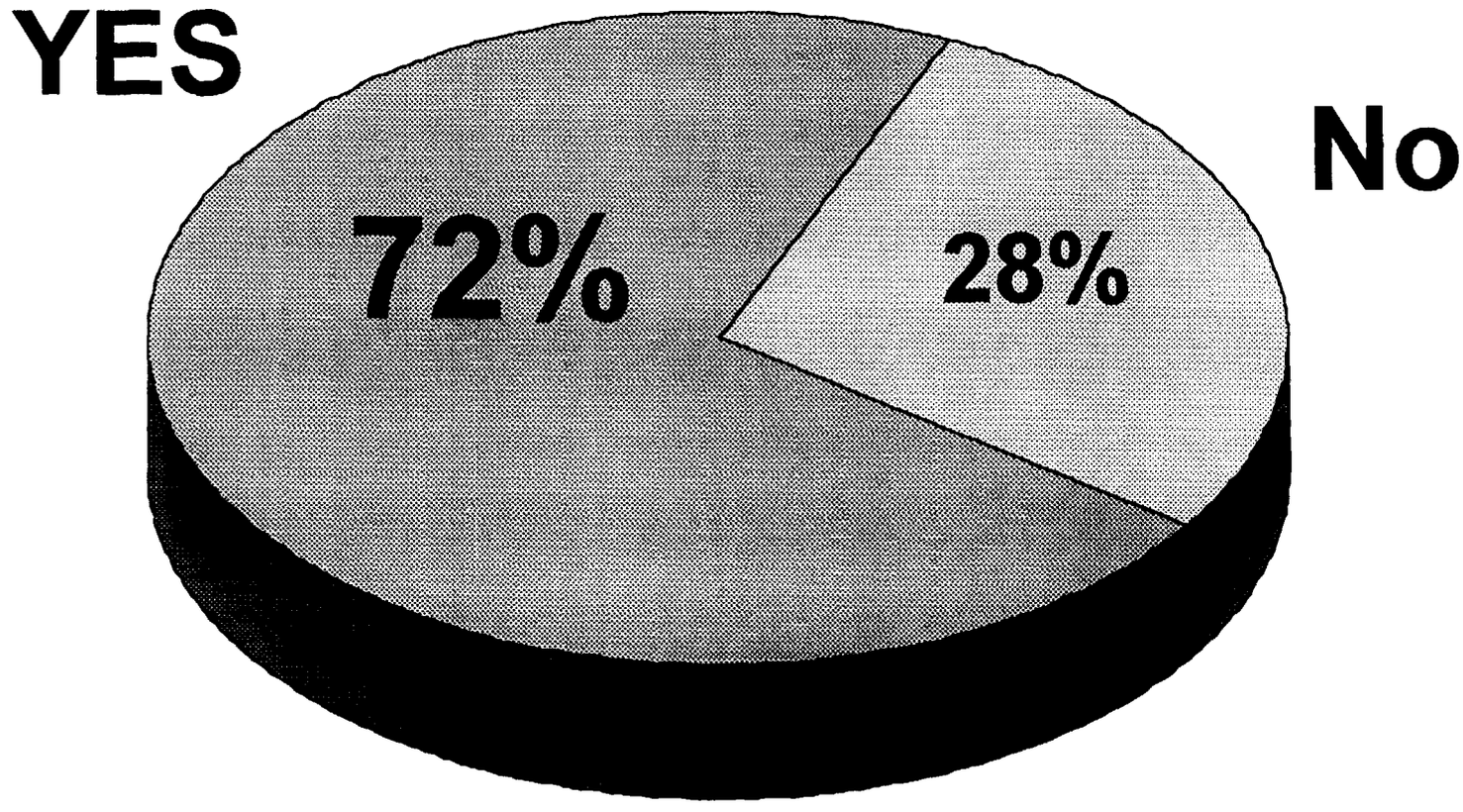
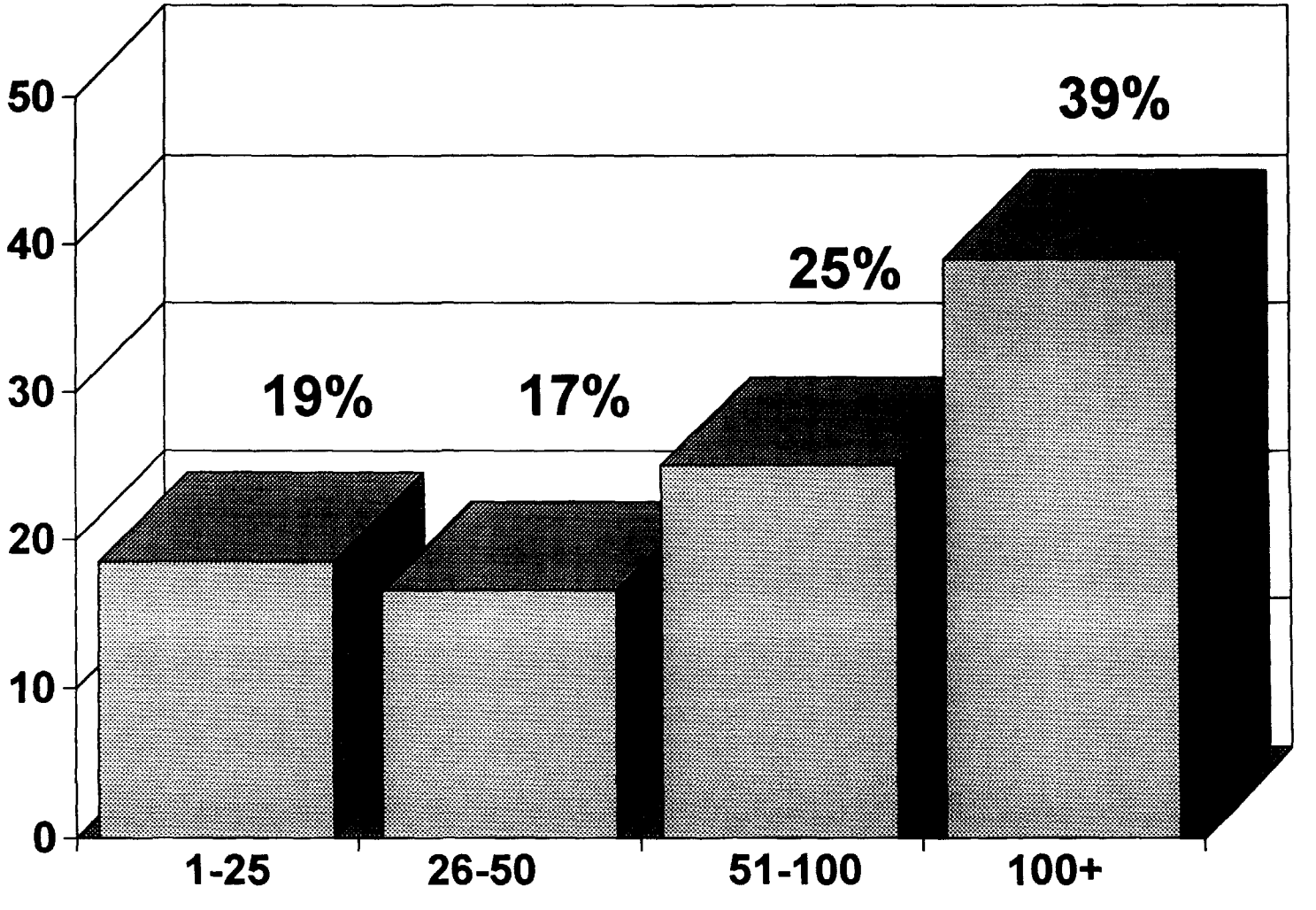


TABLE 9

Systems Research Corp: Harris Corp. Digital TV Survey - Stations

Arbitron market ranking of respondent's station

(Base = 393)



Systems Research Corp: Harris Corp. Digital TV Survey - Stations

TABLE 10

SRC Background

- Systems Research Corporation is a marketing research firm which specializes exclusively in marketing intelligence for high technology companies.
- Through the use of telephone interviews, focus groups, computer diskette surveys, E-mail and Internet Website studies, the company provides research information to some of the largest computer hardware and software companies in the US. as well as to the leading distributors and publishers of computer technology.
- The company was founded in 1992 by Dan Sklaire, President, a ten year veteran of the computer industry, as well as a former marketer with Procter & Gamble and Ogilvy & Mather. Prior to founding SRC, he worked at another hi-tech research firm.
- SRC conducts about 100 studies per year for leading technology companies, providing insight into Data communications, Networking, Internet/Intranet, Systems (PC/Server/Laptop) Mass storage, home computing, VARs/Resellers, Distribution, Satellite communications, electronics, Website effectiveness evaluations and many more. SRC has twice conducted the VARBusiness Magazine Annual Report card study, surveys of more than 3,000 telephone interviews each, which investigated satisfaction with major computer vendors.
- Research is conducted both in the Domestic US. as well as in major international markets. SRC's Websites, www.systemsresearch.com and www.webanalytics.com, while currently under construction, can provide further information.
- SRC has staff who have had prior experience in the broadcast industry, as well as in high technology fields.